

REMARKS

Summary of the Office Action

In the Non-Final Office Action dated November 18, 2004, claims 1-8 and 12-17 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over U.S. Patent No. 6,281,952 to Okamoto et al. (hereinafter Okamoto) in view of U.S. Patent No. 6,396,470 to Zhang et al. (hereinafter Zhang). Claims 9 and 18 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over Okamoto and Zhang in further view of U.S. Patent Application Publication No. 2002/0159016 to Nishida et al. (hereinafter Nishida).

Summary of the Response to the Office Action

Claims 1 and 12 have been amended to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 21 has been added. Accordingly, claims 1-21 are now pending in this application with claims 1-9 and 12-21 under consideration.

All Claims Comply with 35 U.S.C. § 103(a)

Claims 1-8 and 12-17 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over Okamoto in view of Zhang. Claims 9 and 18 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over Okamoto in view of Zhang in further view of Nishida. Applicants amend independent claims 1 and 12 as provided herein. Applicants respectfully submit that neither Okamoto nor Zhang, whether taken singly or in combination,

teach or suggest the novel combination of features recited in amended independent claims 1 and 12, respectively.

1. Okamoto and Zhang do not teach or suggest a plurality of uneven patterns alternating with uncovered portions of the substrate.

In embodiments of the present invention as recited in independent claim 1, as amended, a transflective liquid crystal display device includes at least “a plurality of uneven patterns alternating with uncovered portions of the substrate within the reflective portion.” Similarly, in embodiments of the present invention as recited in independent claim 12, as amended, a method of fabricating a transflective liquid crystal display device includes at least “forming a plurality of uneven patterns alternating with uncovered portions of the substrate within the reflective portion.” In contrast, as depicted in FIGs. 24 and 25 of Okamoto, the organic insulating layer 25 of Okamoto covers the entire reflection display section of Okamoto and, thus, does not include a plurality of uneven patterns alternating with uncovered portions of the substrate within the reflective portion.

2. Okamoto and Zhang do not teach or suggest a plurality of uneven patterns within the reflective portion excluding a peripheral portion of the pixel region.

Moreover, in embodiments of the present invention as recited in independent claim 1, as amended, a transflective liquid crystal display device includes at least “a plurality of uneven patterns within the reflective portion excluding a peripheral portion of the pixel region.” Similarly, in embodiments of the present invention as recited in independent claim 12, as amended, a method of fabricating a transflective liquid crystal display device includes at least “forming a plurality of uneven patterns within the reflective portion excluding a peripheral portion of the pixel region.” As depicted in FIGs. 6 and 7D-7H and as discussed at paragraph

[0046] in the description section of the instant application, the excluded peripheral portion includes a portion of the pixel region which includes the gate line, the data line, and the TFT. In contrast, as depicted in FIGs. 24-25 of Okamoto, the organic insulating layer 25 of Okamoto covers the entire boundary region of the pixel region in Okamoto. Specifically, Okamoto recites at column 69, lines 37-42:

[T]he organic insulation film 25 is formed to cover the line 24 connected to the source terminal 28 of the TFT element 21 at the boundary of adjacent pixels on the TFT element substrate, whereby the driving electrode 19 of the reflection display section 9 is formed on the organic insulation film 25.

Okamoto further recites at column 69, lines 48-50: “as shown in FIG. 23(a), the driving electrode 19 of the reflection display section 9 can be extended directly above the lines 23 and 24.” (Emphasis added). Thus, Applicants respectfully submit that Okamoto does not teach or suggest a plurality of uneven patterns within the reflective portion excluding a peripheral portion of the pixel region.

3. Zhang and Nishida fail to cure the deficiencies of Okamoto.

The Office Action alleges at page 4 that “Zhang discloses an LCD device having a second organic material layer (fig. 20, ref. 181) on the first organic layer (fig. 20, ref. 1061c) having an open portion at the transmissive portion.” Applicants respectfully submit that the alleged second organic layer of Zhang fails to cure the deficiencies of Okamoto set forth above with regard to amended independent claims 1 and 12. Thus, the combination of Okamoto and Zhang does not teach or suggest each of the features of the instant invention as recited in independent claims 1 and 12, respectively. As pointed out in MPEP § 2143.03, “[to] establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” Thus,

Applicants respectfully submit that independent claims 1 and 12 are in condition for allowance as being patentable over Okamoto in view of Zhang.

Applicants further submit that claims 2-9 and 13-18 are allowable for at least the same reasons as set forth above with regard to independent claims 1 and 17 upon which they depend, respectively, and for the additional features they each recite. Moreover, Nishida fails to cure the deficiencies of Okamoto and Zhang with regard to claims 9 and 18, respectively. Accordingly, Applicants respectfully request that the rejections of claims 1-9 and 12-18 under 35 U.S.C. § 103(a) be withdrawn.

New Claim 21 is Patentable

Applicants have added claim 21. In embodiments of the present invention as recited in independent claim 21, a transreflective liquid crystal display device includes at least “a plurality of uneven patterns covering portions of the inorganic material layer within the reflective portion excluding a peripheral portion of the pixel region, the uneven patterns including a first organic material and alternating with uncovered portions of the inorganic material layer.” Applicants respectfully submit that independent claim 21 is allowable for at least the same reasons discussed above with regard to independent claims 1 and 12.

CONCLUSION

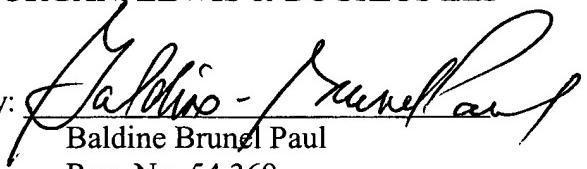
In view of the foregoing remarks, Applicants respectfully request reconsideration of this application, withdrawal of all rejections, and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite the prosecution.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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